

TECHNOLOGY READINESS LEVEL: 8

US PATENT # 7,571,493

HAS BEEN PROVEN TO WORK IN ITS NEAR FINAL FORM.

TECHNOLOGY SUMMARY

The primary purpose of the “Kevlar Gauntlet” is to provide military personnel with much needed, lightweight protection while in combat. A particular threat to U.S. soldiers are rocket propelled grenades (RPGs) and improvised explosive devices (IEDs) which can create significant risks to safety as a result of debris, shrapnel, spall, superheated air blasts, and shock waves. The gauntlet, which can be worn on the arms for soldiers operating atop Bradley Fighting Vehicles and armored HUMVEEs, will protect the soldiers’ exposed arms and shoulders which are not protected by traditional body armor vests. Alternately, the gauntlets can be worn on the legs as protection inside a vehicle that may not have armored doors or any doors at all.



The lightweight armored garment is made of a ballistic fabric such as KEVLAR® along with more rigid armored carbon composite inserts that protect against high-velocity projectiles, shrapnel, and spall. The combination of these layers meets level IIIA fragmentation minimum for the US Interceptor Outer Tactical Vest.

POTENTIAL APPLICATIONS

- Body armor
- Weapons protection
- Outdoor sporting protection

TECHNOLOGICAL BENEFITS

- Lightweight protection that can be worn on upper or lower limbs
- Carbon-composite inserts mitigate blunt force trauma, penetration, or shredding that can be caused by firearms, explosives, and debris
- Kevlar® provides heat protection

TECHNOLOGY INQUIRY?

For more information or licensing opportunities contact at

[**ip@sandia.gov**](mailto:ip@sandia.gov)

Refer to SD # 7675

or

[**https://ip.sandia.gov**](https://ip.sandia.gov)